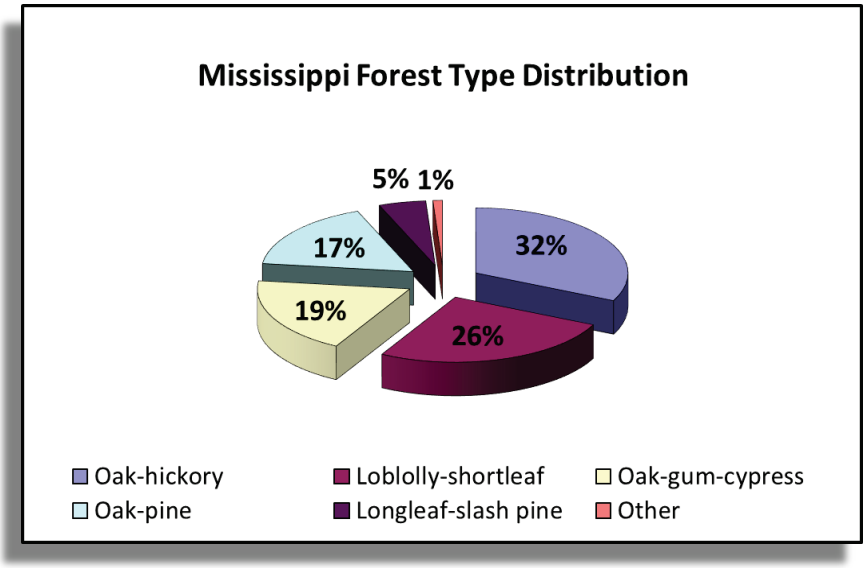
Mississippi

2019 Forest Health Highlights

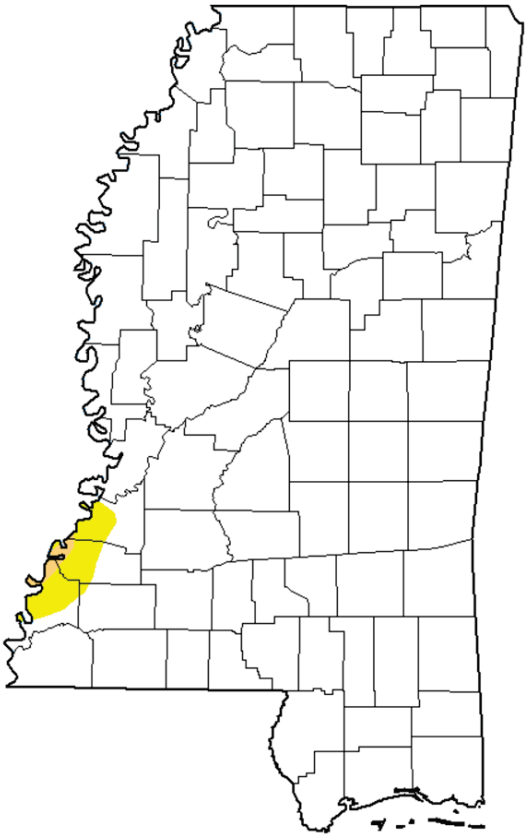
The Resource

Mississippi's forests cover 19.9 million acres, more than 65% of the state's land area. Some 13.1 million acres of the states forested land is in non-industrial private ownership, while approximately 1.1 million acres are in national forests. Mississippi's forests are prized for their scenic beauty, supporting tourism and outdoor recreation and providing wildlife habitat throughout the state. Major forest types in the state include oak-hickory, loblolly and shortleaf pine, longleaf and slash pine, mixed oak-pine, and oak-gum-cypress.



Water Woes

Extreme precipitation patterns in Mississippi during 2019 led to an interesting mix of forest health problems associated with either too much or two little water. Many parts of the Mississippi River basin experienced near-record rainfall during late winter/early spring, causing very high river levels as late as mid-July in some stands. Flooding damage from prolonged inundation during the growing season apparently damaged an appreciable number of lowland water oaks and other hardwood species in these areas. Reports of hardwoods succumbing to this flooding, as well as signs and symptoms of subsequent ambrosia beetle and other wood borer attacks continue to come in from these areas. One large timber manager reported over one million boardfeet of dead cottonwoods, ash, oaks, and other species near Vicksburg that had all been infested with ambrosia beetles following extended flooding during greenup. Later in the summer, drought conditions became common throughout much of Mississippi, leading to reports of Ips activity, and an isolated case of hickory decline, involving the hickory bark beetle and various woodborers. Current drought conditions have finally eased in the fall/early winter.



Map released: Thurs. November 21, 2019

Data valid: November 19, 2019 at 7 a.m. EST

Intensity:

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

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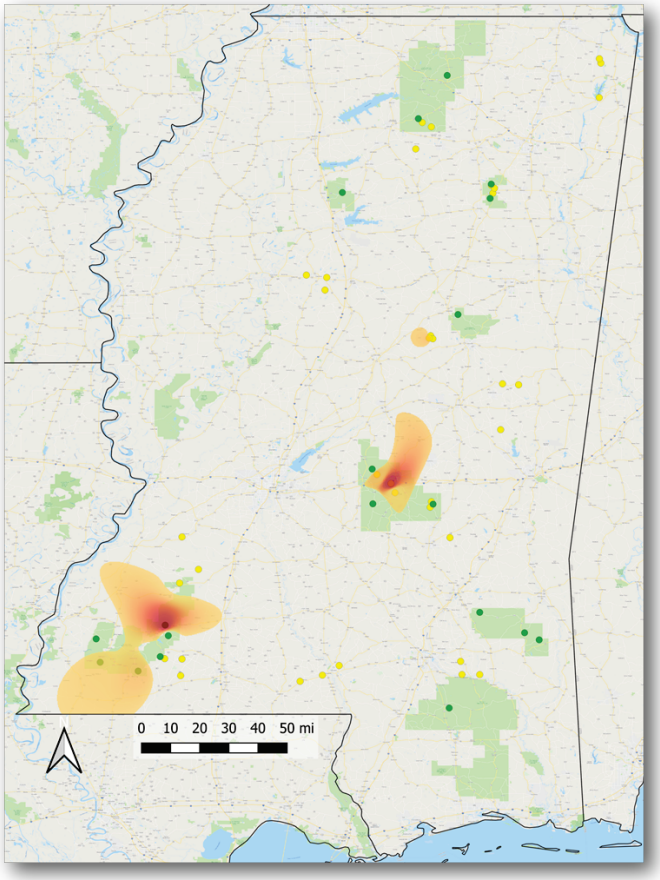
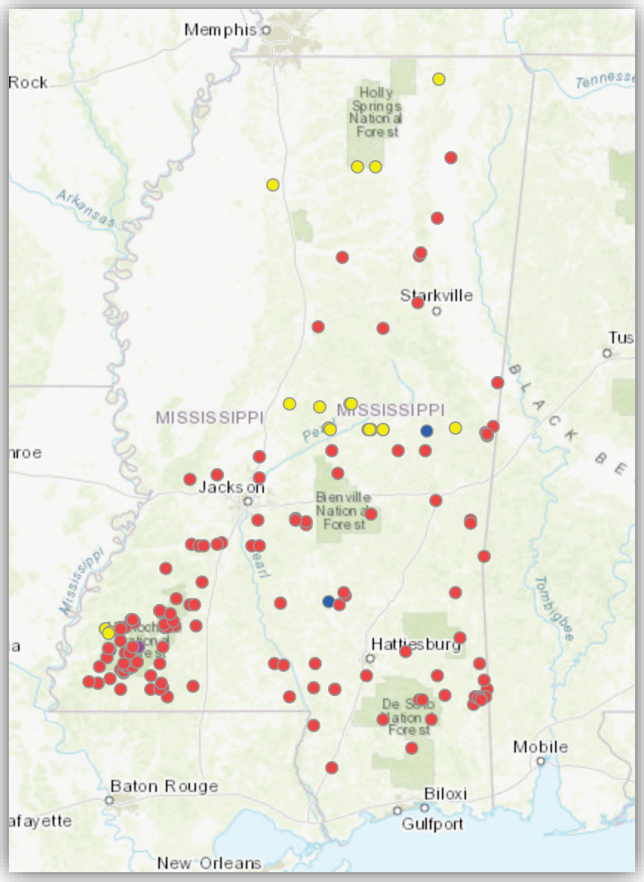
*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying **text summary** for forecast statements.*

Southern Pine Beetle

Annual survey flights for the State covered approximately 25 million surveyed acres. Spring trapping survey predictions for the most part correlated well with actual outbreak conditions. Southern pine beetle populations have fallen statewide. In 2019, 158 spots were detected on private or State lands during aerial surveys, most of which were centered around Bienville and Homochitto National Forests. Spots were posted to the SPB Activity Map on the MFC's website [SPB Activity Map]

Federal lands continued to house the majority of the state's SPB spots, however activity has decreased from the 2 previous years.





Redbay Ambrosia Beetle

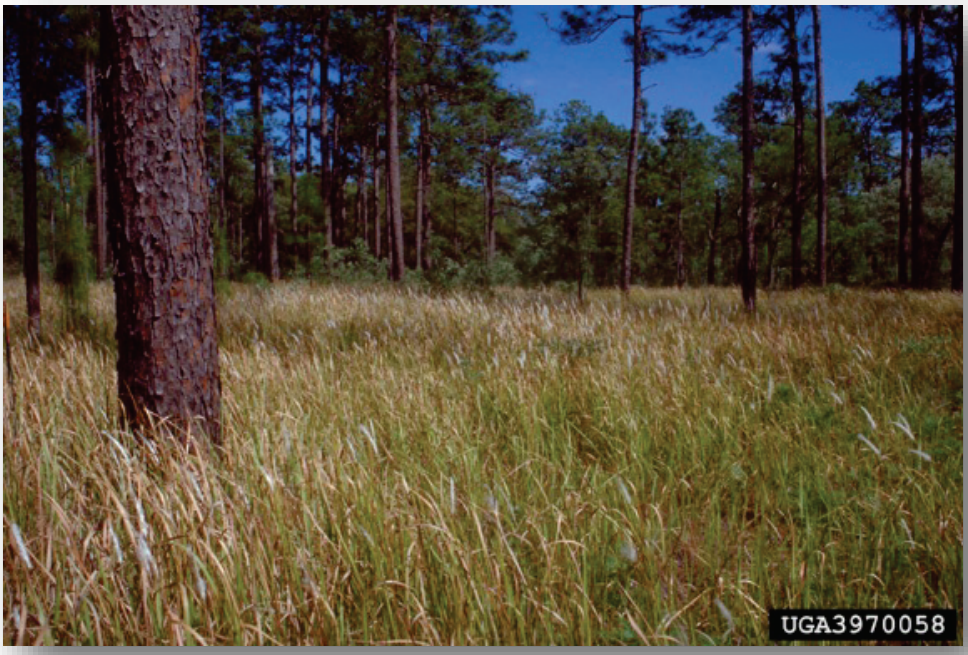
The redbay ambrosia beetle was detected for the first time in Jackson County, MS in July, 2009. This insect carries the fungus that causes Laurel Wilt Disease. Since its introduction to the Southeast, it has caused considerable mortality to redbay, swamp bay, sassafras, avocado, and other species of trees and shrubs in the Lauraceae. Current distribution records indicate the disease is present from North Carolina to Florida, westward to newer established populations in north-central Louisiana and eastern Texas. The infestation in Mississippi continues to expand, and is now present throughout the majority of Jackson Co., and portions of George and Harrison Counties in redbay, swamp bay, sassafras, as well as camphor tree. In 2015, laurel wilt was also confirmed in Stone and Perry Counties, and in 2016 was confirmed in Forrest County, MS. In 2019, LWD was confirmed in sassafras and redbay near Laurel, MS (Jones County). Collaborative research between MFC, MFC, MSSTATE, and the USDA Forest Service Region 8 FHP has led to the conclusion that the beetle was likely spread to Mississippi by human movement of infested materials from beetles along the Atlantic Coast of the U.S., rather than through a separate introduction through a local port. Cold tolerance of the vector suggests that nearly all sassafras trees in the U.S.A. are at risk from invasion and mortality due to redbay ambrosia beetle and its fungal symbiont. Additional research indicates more than two dozen native insect herbivores could be seriously impacted by LWD killing their hosts, as exemplified by a 7-fold decrease in Palamedes swallowtail butterflies in south Mississippi within a few years of LWD infestation.

Southern pine beetle (SPB) Prevention Program

The MFC and the USDA Forest Service Forest Health Protection Southern Region continues to administer a comprehensive SPB Prevention/Education Program to teach landowners about the benefits of thinning for the reduction of SPB hazard. In addition to the educational aspects of this program, there is an associated statewide cost-share program to assist landowners in getting the pre-commercial and 1st commercial thinning accomplished.

Federal grants from 2016 – 2018, allowed for 3,393 acres of cost shared thinning, totaling $290,275 in expended in funds that were paid out to landowners after they completed the thinning projects on their properties.

Cogongrass is a non-native, invasive plant that has been spreading aggressively in Mississippi in recent years. It takes over native grasses and vegetation and is a fire hazard under pine plantations. The severity and extent of infestations have increased considerably in the disturbed forests following hurricane Katrina in 2005. The MS Forestry Commission has been funded for several years by the USFS under their redesign grants to continue the fight against this invasive weed. To date (since 2010), we have treated 4,699 acres for 2,320 landowners, with over $1.5 million going directly for treatments for landowners. Under this program, there is no cost to landowners for this service. The agency has continued efforts this year while working primarily in Lamar and Forrest Counties. It should be noted that the further south crews advance, they are treating larger spots with increased density. Current cost per acre to treat cogongrass under this program averages approximately $400 per acre.



Chinese Tallow Tree is another non-native, invasive plant that has been spreading aggressively in Mississippi. Chinese tallow is a popular ornamental because of its fast growth rate, attractive fall color, and ability to resist damage from pests. The Chinese tallow trees has flowers that are attractive to bees and other insects. It produces three-lobed capsule fruit that ripens from August to November. They are deciduous with a strong, deep taproot. This enables young trees to withstand periods of drought. Seeds are spread by birds, and moving water.

Hurricane Katrina likely added to the increased rate of spread for this invasive. Chinese tallow can invade almost all habitats from wet to dry and from sun to shade. It often grows along roadsides, coastal areas, and streams. Some specimens can produce up to 100,000 seeds that may be eaten and dispersed by birds. Regrowth often occurs from cut stumps or roots. Native species are crowded out once Chinese tallow becomes established. The leaves and fruit are toxic to cattle and cause nausea and other sicknesses in humans.

With the help of LaSR funding, the Mississippi Forestry Commission was able to develop a web-based app that allows the agency to crowd source mapping of this plant statewide. The site HelpStopThePop.com has been extremely successful and continues to generate a lot of interest. To-date, the public has reported 3,861 sites totaling nearly over 8,000 acres statewide. The MFC has also partnered with six (6) municipalities and one (1) nonprofit to provide herbicide and training to city personnel and volunteers for treating Chinese Tallow on public property.

The MFC has also renewed efforts to encourage forest landowners to utilize the state Forest Resource Development Program (FRDP) cost share funds to treat Chinese tallow in their forest stands.

Welcome to the MFC Tallow Tree Map
Current Tracking Statistics
3,861
Total Number of Sites
8,132
Total Number of Acres
Click the plus sign above to begin tracking infestations of Chinese tallow tree in forests and communities throughout the state of Mississippi.
Chinese Tallow tree is a deciduous to evergreen tree introduced around 1850 as a seed oil crop. It is native to China, Japan, and Korea, but commonly grown in the

Forest Health Assistance in Mississippi

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